## *Identify the slope and y-intercept for each equation.*

1. 
$$y = \frac{2}{3}x - 4$$
  
2.  $y - 3x = \frac{1}{2}$   
3.  $2y - 6x = 10$ 

## Write an equation for the line with the given slope and y-intercept.

4.  $m = \frac{2}{5}, b = 5$  5. m = 0.3, b = -1.5

## Write an equation for the lines shown on each graph.



16. When the Bryants leave town for a vacation, they put their dog Tyco in a kennel. The kennel charges \$15 for an immediate flea bath and \$5 per day.

- a.) Write and equation in slope-intercept form to represent the situation.
- b.) Graph the equation.
- c.) Explain why only Quadrant I is needed to graph this situation.



## 17. Which equation has the same y-intercept as y = 4x - 3? a) y-3=x b) y=8x+3 c) 3-y=4x d) y=-3+8x

18. Which of the following is the equation of the line that has the same slope as  $y = -\frac{3}{2}x + 2$  and the same y-intercept as y = 3x - 2?

a)  $y-2 = -\frac{3}{2}x$  b)  $-\frac{3}{2}x = y+2$  c)  $y+2 = -\frac{3}{2}$  d)  $-\frac{3}{2}x = y+3$ 

19. A software company started with 2 employees. In 6 months, the company had 7 employees. The number of employees increased at a steady rate. Which equation models the relationship between the number of employees *n* and the number of months *m* since the company started?

a) 
$$n = \frac{5}{6}m + 2$$
 b)  $m = 2n + \frac{5}{6}$  c)  $n = \frac{6}{5}m + 2$  d)  $m = \frac{5}{6}n + 2$ 

20. A line passes through the points (0,3) and (1,5). Graph this line and find an equation for the line in slope-intercept form.

